

## STRUCTURE OF FORMATIVE LIGHTING FIXTURES

### FIELD OF THE INVENTION

[0001] This invention relates generally to the structure of formative lighting fixtures, more particularly, it relates specifically to an improved structure of formative lighting fixtures which is formed to create a dazzling effect through a refracting layer so that the lighting fixtures could be made easier and the amount of bulb could be reduced.

### BACKGROUND OF THE INVENTION

10 [0002] In order to heighten the festival atmosphere, the formative lighting fixtures are usually structured in specific shapes. Referring to Fig. 1, a conventional structure of formative lighting fixtures is constructed with a frame (A) and a plurality of lighting tubes (B), in which the frame (A) could be a skeleton having a specific appearance comprised of a plurality of rods, while the lighting tubes (B) are tangled  
15 on and along the entire skeleton such that the frame (A) could serve as a lighting ornament.

[0003] In a conventional formative lighting fixture, the bulb in a lighting tube is heated to emanate light, however, the light is either not refracted or refracted in a poor quality through the tube wall. Therefore, this invention is proposed to enhance the  
20 whole dazzling phenomenon with fewer bulbs to thereby save power and energy compared with the conventional.

### SUMMARY OF THE INVENTION

[0004] The primary objective of this invention is to provide an improved structure of formative lighting fixtures for eliminating the defects as mentioned in the  
25 conventional.

[0005] In order to realize abovesaid objective, the structure of formative lighting fixtures of this invention is constructed with a frame, a plurality of bulbs, and a refracting layer, in which the frame could be formed by gathering a plurality of rods and profiled in a specific contour (like a Christmas tree, a Santa Claus, or an elk, etc.), then, the bulbs are installed on the frame to serve for lighting ornaments, and finally, the rods on the frame are coated with a refracting layer of a transparent material (such as acrylic, PVC, or glass).

[0006] The advantages and features of this invention could be summarized as the following:

1. By coating a refracting layer on the frame, the light from the bulbs could be refracted to produce a dazzling effect;
2. Lowering cost and saving energy by reducing the bulb's amount is possible; and
3. As the refracting layer is formed by coating a fused material on the frame, therefore, the job can be done easily and rapidly independent of the formation of the frame.

[0007] For more detailed information regarding advantages or features of this invention, at least an example of preferred embodiment will be fully described below with reference to the annexed drawings.

## **BRIEF DESCRIPTION OF THE DRAWINGS**

[0008] The related drawings in connection with the detailed description of this invention to be made later are described briefly as follows, in which:

Fig. 1 shows the three-dimensional structure of a conventional formative lighting fixture;

Fig. 2 shows the three-dimensional structure of a lighting fixture of this

invention without coating a refracting layer;

Fig. 3 shows the three-dimensional structure of the lighting fixture of this invention coated with a refracting layer;

Fig. 4 shows the three-dimensional structure of the lighting fixture in  
5 another embodiment of this invention; and

Fig. 5 shows the three-dimensional structure of the lighting fixture in yet another embodiment of this invention.

### **DETAILED DESCRIPTION OF THE INVENTION**

[0009] The detailed description of some preferred embodiments is made below  
10 with reference to the enclosed drawings.

[0010] Referring to Figs. 2 and 3, according to a preferred embodiment of this invention, the structure of formative lighting fixtures is comprised of a frame (1), a plurality of bulbs (2), and a refracting layer (3).

[0011] The frame (1) is substantially a quadrangular tapered skeleton made by  
15 aggregating a plurality of rods. The plurality of bulbs (2) disposed scatteringly on the ribs of the frame (1) is the light source, and the refracting layer (3) is made of a transparent material and coated on the rods of the frame (1).

[0012] The refracting layer (3) could be either a transparent vitreous material or a plastic material, such as PVC or acrylic.

20 [0013] Moreover, the refracting layer (3) made of a transparent material is specifically tinted and patterned.

[0014] According to another embodiment of the structure of formative lighting fixtures of this invention shown in Figs. 4 and 5, the frame (1) is profiled in a snowman or an elk by combining a plurality of mold-treated rods provided with a  
25 plurality of bulbs (2) and coated with a refracting layer (3).

[0015] The frame (1) of the structure of formative lighting fixtures of this invention is skeletonized and formed into a seasonable and timely formation, such as a Christmas tree, a snowman, or an elk, etc., with selected proper rod or rib material. Then, the bulbs are disposed on the skeleton of the frame (1), and finally, a suitable transparent material, glass, PVC, or acrylic for example, is fused and distributed scatteringly and randomly on the skeleton of the frame (1) in its thready state to thereby form the refracting layer (3) such that a dazzling phenomenon making the formative lighting fixtures more splendid and elegant is presented when light emitted from the bulbs penetrates into and refracted through the refracting layer (3).

[0016] In addition, in the case the transparent refracting layer is specifically tinted, the formative lighting fixtures would show off a more colorful and attractive scene. Further, a specific pattern, for example an ornament on a Christmas tree, a Santa Claus's dress, or the stripe or bell of an elk, could be added to the coated refracting layer (3) to enrich the variations of the formative lighting fixtures.

[0017] In the above described, at least one preferred embodiment has been described in detail with reference to the drawings annexed, and it is apparent that numerous changes or modifications may be made without departing from the true spirit and scope thereof, as set forth in the claims below.